

ABSTRACT OF THE DISCLOSURE

A molding machine having a mold including upper and lower mold plates, an upper heat transfer platen connected to the upper mold plate, and a lower heat transfer platen connected to the lower mold plate. Each mold plate contains mold cavities. When the mold plates are aligned and abutted, mold locations from the upper and lower mold plates cooperate to form mold volumes. Each of the heat transfer platens contain two series of independent channels for supplying heat transfer media to control the temperature of the material being molded. Each series of channels includes feeder channels and transverse channels. All of the transverse channels of a heat transfer platen are substantially coplanar and parallel. A plurality of adapters supplies heat transfer media to the channels. A ram is connected to one of the heat transfer platens. A control system controls movement of the ram. A protection device continuously monitors the operation of the molding machine. The protection device monitors the movement and position of the ram and the pressure exerted by the ram. The control system contains a plurality of triggers to ensure the molding machine is operated under predetermined conditions.